Incorrect or out of phase engine timing can result in damage to the valves. The Tool Connection cannot be held responsible for any damage caused by using these tools in anyway.

Safety Precautions – Please read

- Disconnect the battery earth leads (check radio code is available)
- Remove spark or glow plugs to make the engine turn easier
- Do not use cleaning fluids on belts, sprockets or rollers
- Always make a note of the route of the auxiliary drive belt before removal
- Turn the engine in the normal direction (clockwise unless stated otherwise)
- Do not turn the camshaft, crankshaft or diesel injection pump once the timing chain has been removed (unless specifically stated)
- Do not use the timing chain to lock the engine when slackening or tightening crankshaft pulley bolts
- Do not turn the crankshaft or camshaft when the timing belt/chain has been removed
- Mark the direction of the chain before removing
- It is always recommended to turn the engine slowly, by hand and to re-check the camshaft and crankshaft timing positions.
- Crankshafts and Camshafts may only be turned with the chain drive mechanism fully installed.
- Do not turn crankshaft via camshaft or other gears
- Check the diesel injection pump timing after replacing the chain
- Observe all tightening torques
- Always refer to the vehicle manufacturer's service manual or a suitable proprietary instruction book
- Incorrect or out of phase engine timing can result in damage to the valves
- It is always recommended to turn the engine slowly, by hand, and to re-check the camshaft and crankshaft timing positions

recycle
When you have finished with this leaflet please recycle it

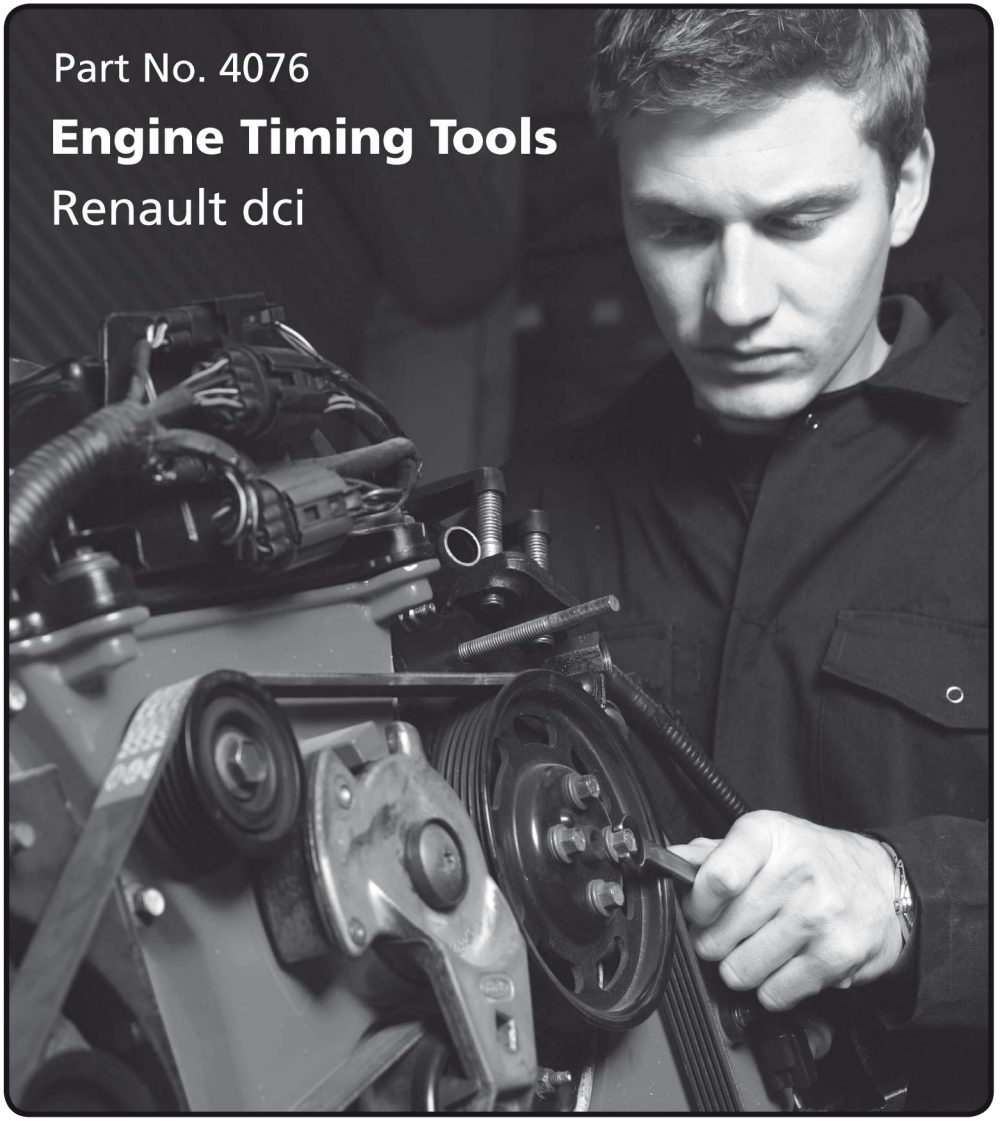
Guarantee

If this product fails through faulty materials or workmanship, contact our service department direct on: **+44 (0) 1926 818186.** Normal wear and tear are excluded as are consumable items and abuse.

Part No. 4076

Engine Timing Tools

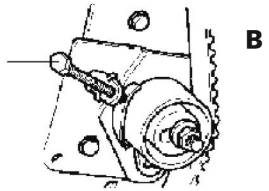
Renault dci



Instruction (GB)

Tensioning Adjustment Screw

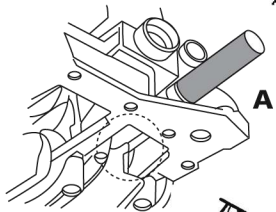
To enable the correct tension to be applied to the timing belt.

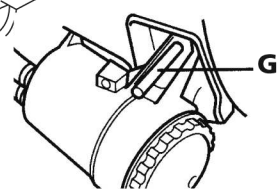


Crankshaft Timing Pins

There are two different pieces included in this set. As with the camshaft timing pin, they are inserted through the engine block and used to position the crankshaft to achieve the correct timing position of the first cylinder.

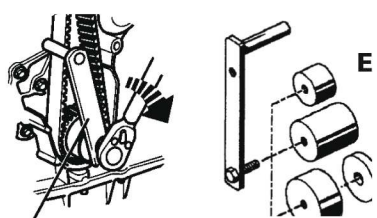
It is important that these pieces are used to set the timing position, but are not to be used to lock the flywheel.





Tensioning Tools

To enable the correct pre-tension to be applied to the timing belt, this tool has 4 interchangeable covers and a spacing washer to suit the variety of tensioners used.

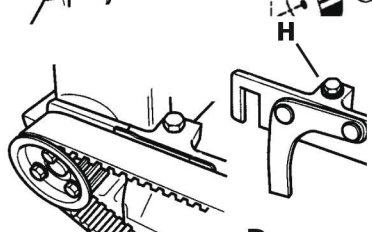


Install the exhaust camshaft locking tool and hold in place using the setscrew

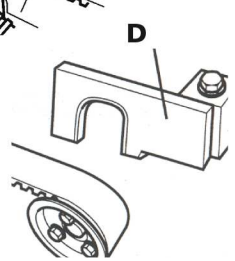
If the tool cannot be fitted correctly, rotate the crankshaft one turn clockwise.

Slacken the sprocket fasteners, but check that during installation the fasteners are not positioned at the end of the slots.

The lever arm will make contact with the tensioner. As a visual register the top of the arm will align with the camshaft locking tool when the tensioner is turned anti-clockwise whilst being tensioned using a 6 mm. hex. key.



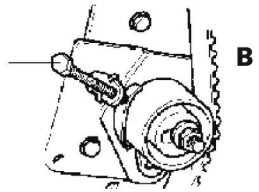
Install the inlet camshaft locking tool over the vertical flats on the camshaft.



Instruction (FR)

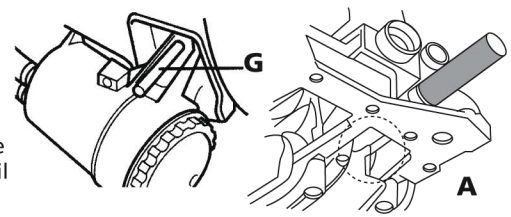
Boulon de tendeur

Pour l'application de la tension sur la courroie de distribution



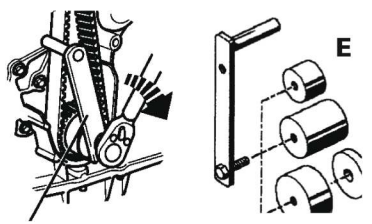
Piges de calage des volants moteurs:

Permet le calage du vilebrequin au PMH. Outil de calage moteur de PMH, à ne pas utiliser comme outil de blocage moteur.

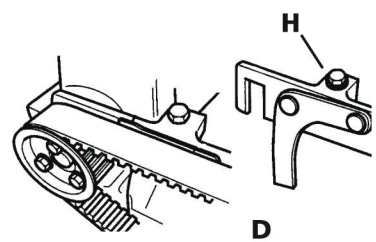


Outils de tendeur

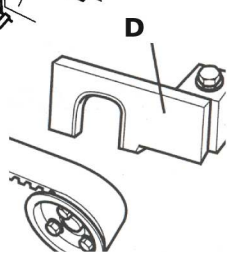
Permettre à la pre - tension correcte d'être appliqué à la ceinture du réglage. Cet outil a trois coupes interchangeables et une rondelle de l'espacement pour convenir la variété de tensioner utilisé



Monter l' outil de calage d' arbres à cames, échappement, F et le tenir fixe utilisant la vis de blocage G.
Si ce n' est pas possible de monter l' outil correctement, tourner le vilebrequin un tour dans le sens des aiguilles d' une montre. Lacher les vis du pignon, mais contrôler que pendant le montage les vis ne se trouvent pas aux extremités des fentes. Le bras levier va contacter la poulie de tension. Comme répère visuel la partie supérieure du levier tendeur va s' aligner avec l' outil de blocage de l' arbre à came quand la poulie de tension est tourné anti-horaire en appliquant la tension avec une clé hexagonale de 6mm.

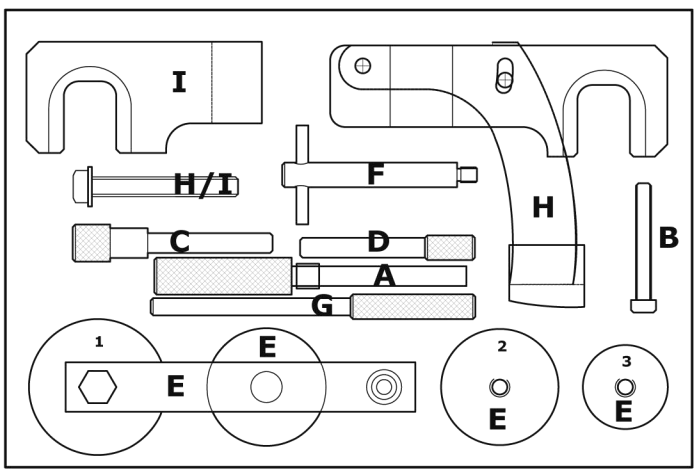


Monter l' outil de blocage d' arbre à came admission H sur les surfaces plates sur l' arbre à came.



Mode d'emploi – Il faut toujours se référer au manuel d'entretien du constructeur automobile ou à un manuel d'instructions approprié du constructeur.

Plan Layout

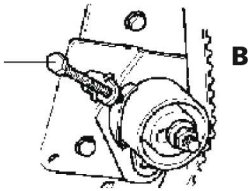


Ref	Code	Oem Code	Description
A	C037	MOT 1489	Crankshaft Timing Pin
B	C067		M6 X 30mm Tensioning Screw
C	C099	MOT 1054	Flywheel Locking Pin
D	C101	MOT 1430	Camshaft Timing Pin
E	C281	MOT 1543	Tension Pre-Setting Tool
F	C182	MOT 1538	Hi Pressure Fuel Pump Pulley Locking Pin
G	C179	MOT 1536	Flywheel Setting Pin
H	C180	MOT 1537	Camshaft Locking Tool - Exhaust
I	C181	MOT 1534	Camshaft Locking Tool – Inlet

Instruction (DE)

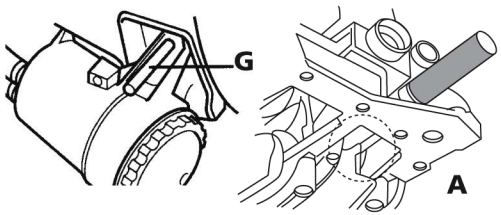
Spannwerkzeug

Fur der korrekten Spannung ermöglicht, zum riemens-Gürtel angewandt zu werden.

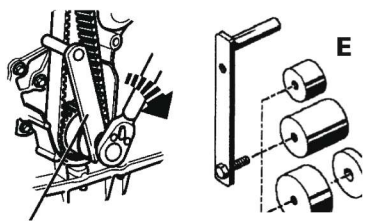


Kurbelwellen-Fixierdorn

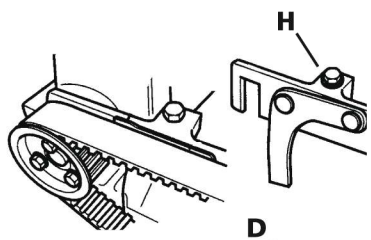
Es gibt vier andere Stücke, die in diesem eingeschlossen werden, das gesetzt wird. Wie mit der Nockenwelle-Timing-Nadel werden sie durch den Motorblock hineingesteckt und gebraucht, die Kurbelwelle aufzustellen, um die korrekte riemen des ersten Zylinders zu erreichen. Es ist wichtig, daß diese Stücke benutzt werden, um die riemens zu setzen, aber wird nicht benutzt werden, um das Schwungrad abzuschließen.



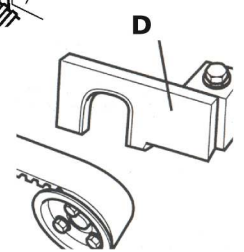
Die Auslass-Nockenwelle mit dem Halter F arretieren und mit der Schraube G sichern. Ist das Werkzeug nicht exakt zu montieren, drehen Sie die Kurbelwelle um 180° in Drehrichtung. Lösen Sie die Befestigung der Riemenscheibe, während der Installation dürfen die Schrauben nicht am Ende der Langlöcher anliegen.



Der Hebelarm wird am Spanner anliegen. Die Oberseite des Armes fluchtet mit der NW-Arretierung, wenn der Spanner gegen den Urzeigersinn gedreht wird. Verwenden Sie einen 6 mm Inbus.



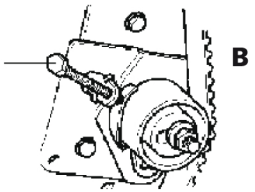
Montieren Sie die Arretierung H der Einlass-Nockenwelle an den senkrechten Abflachungen der Welle.



Instruction (ES)

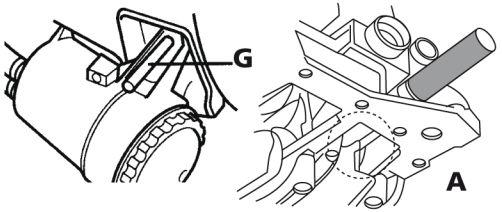
Tornillo de tensado

Que permite aplicar la tensión correcta a la correa de distribución.



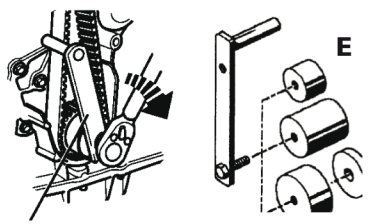
Chavetas de reglaje del cigüeñal

Hay cuatro pedazos diferentes incluidos en esto puesto. Como con el árbol de levas que cronometra el alfiler, ellos se insertan a través del bloque motor y posicionaban el cigüeñal para lograr la posición de la oportunidad correcta del primer cilindro. Es importante que estos pedazos se usan para poner la posición de la oportunidad, pero no será usado para cerrar con llave el volante.



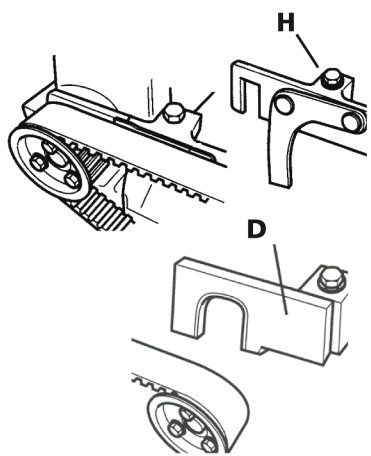
Herramienta de tensado

Para permitir aplicar la pre-tensión correcta a la correa de distribución. Esta herramienta tiene 3 el tubo de protección intercambiables y una espacio para satisfacer la variedad de tensor usada.



Instale el herramienta de bloques de àrbol de levas de escape F y contenga lugar que usa un tornillo de seguridad G.

Si la herramienta no puede encajarse correctamente, ruede el cigüeñal uno se vuelve en el sentido de las agujas del reloj. Modere los broches del diente, pero verifique eso durante instalación que los broches no se posicionan al final de las hendeduras. El brazo de la palanca lega el contacto de cierre con el tensor. Como un registro visual la cima del brazo alineará con el útil fijador del árbol de levas cuando el tensor se ha vuelto anti-en el sentido de las agujas del reloj aunque siendo de tensor que usa un llave 6 mm.



Instale el herramienta de bloques de àrbol de levas de admisión encima de los pisos verticales en el árbol de levas.

Applications

The application list for this product has been compiled cross referencing the OEM Tool Code with the Component Code.

In most cases the tools are specific to this type of engine and are necessary for Cam belt or chain maintenance.

If the engine has been identified as an interference engine valve to piston damage will occur if the engine is run with a broken Cam belt.

A compression check of all cylinders should be performed before removing the cylinder head.

Always consult a suitable work shop manual before attempting to change the Cam belt or Chain.

Autodata

Our applications data is supplied by Autodata and we are able to supply this data to you in a PDF format.

If this is a specific kit for a group of engine codes the application list has been supplied showing the main vehicles this kit is designed for and does not list every model each pin fits.

If this is a master kit then all vehicles are included.

The data is the copyright of Tool Connection and should not be reproduced.

If the application data is extensive we have included a CD with the application list in .pdf format.

Languages

We have also included where possible translations for the instructions in the following languages:

- French
- Spanish
- German
- Portuguese
- Italian
- Dutch

The use of these engine timing tools is purely down to the user's discretion and Tool Connection cannot be held responsible for any damage caused what so ever.

ALWAYS USE A REPUTABLE WORKSHOP MANUAL